

WHAT IS CLAIMED IS:

1. A portable motorcycle lifting device comprising:
  - an inner lifting structure having a first forward and first rearward end;
  - an outer lifting structure having a second forward and second rearward end;
  - an upper cradle support having a third forward and third rearward end; and
  - an articulated lifting system integrated within said inner and outer lifting structures, wherein said inner lifting structure is generally positioned within said outer lifting structure and both lifting structures are connected by a common fulcrum positioned approximately in the middle of each lifting structure,  
wherein said first rearward end of said inner lifting structure is rotatably and slidably attached to said third rearward end of said upper support cradle,  
wherein said second forward end of said outer lifting structure is rotatably attached to said third forward end of said upper cradle support,  
wherein said articulated lifting system may be operated to raise said upper cradle support from a non-deployed position to a fully deployed position.
2. The lifting device according to claim 1, said first forward end of said inner lifting structure having a first transversely mounted cross member, and said second rearward end of said outer lifting structure having a second transversely mounted cross member.
3. The lifting device according to claim 2, said second cross member having a roller wheel assembly mounted to each end of said second cross member.
4. The lifting device according to claim 3, wherein when said lifting device is deployed or reconfigured to the non-deployed position, said second cross member rolls on the floor surface via said roller wheel assemblies and said first cross member stays in a stationary position.
5. The lifting device according to claim 4, wherein when said lifting device may be moved similar to that of a dolly.
6. The lifting device according to claim 3, wherein said lifting device may be stored in a vertically upright position similar to that of a dolly.
7. The lifting device according to claim 1, said inner lifting structure, outer lifting structure, and upper cradle support formed from light weight high-strength tubing.

8: The lifting device according to claim 1, said upper cradle support having a generally channel shaped cross section adapted to receive at least one of the front and rear tire of a motorcycle.

9. The lifting device according to claim 8, said cradle support adapted to support sidewalls of at least one of the front and rear tire of a motorcycle.

10. The lifting device according to claim 7, said upper cradle support comprising longitudinally and parallel oriented lower left and right support members and upper left and right support members, said upper left support member spaced above and laterally outward from said lower left support member and said upper right support member spaced above and laterally outward from said lower right support member.

11. The lifting device according to claim 7, wherein said lower left and right support members are adapted to support a tread and ground contacting region of a motorcycle tire, and wherein said upper left and right support members are adapted and positioned to support a sidewall region of the motorcycle tire.

12. The lifting device according to claim 1, said upper cradle support further comprising a wheel chock.

13. The lifting device according to claim 12, said wheel chock adapted to accept an incoming wheel without requiring any adjustment by the operator of said lifting device.

14. The lifting device according to claim 1, said third forward end of said upper cradle having an upwardly inclined portion which forms a forward tire cradle.

15. The lifting device according to claim 1, said articulated lifting system comprising, a hydraulic bottle jack having a base pivotally mounted about a jacking device axle mounted transversely in a forward region of said inner lifting structure, and a displacement arm which is adapted to be hydraulically pushed from said bottle jack, said displacement arm having a distal end;

a lifting arm rotatably attached about said fulcrum, said lifting arm having a forward portion and a rearward portion, said forward portion pivotally attached to said distal end of said displacement arm; and

a rearward linkage arm having one end pivotally attached to said rearward portion of said lifting arm, and another end pivotally attached to said second rearward end of said outer lifting structure.

16. The lifting device according to claim 15, wherein said bottle jack is operated by a hand lever.
17. The lifting device according to claim 15, wherein when said motorcycle lifting device is in the non-deployed position, said articulated lifting system is positioned in a generally straight configuration within said inner and outer lifting structure.
18. The lifting device according to claim 1, wherein when said motorcycle lifting device is in the non-deployed position, said inner and outer lifting structures are oriented in a generally parallel manner with respect to each other.
19. The lifting device according to claim 1, said inner and outer lifting structures forming a scissor frame.
20. The lifting device according to claim 1, further comprising a removable rear support section rotatably attached to said rearward end of said upper cradle support.
21. The lifting device according to claim 20, wherein said removable rear support section may be folded upwards and positioned next to said upper cradle support when said lifting device stored in a vertical position.
22. The lifting device according to claim 2, further comprising a bracing member which is rotatably attached to said rearward end of said upper cradle support and which may be engaged with said second transversely mounted cross beam.
23. The lifting device according to claim 20, further comprising a removable ramp adapted to be attached to a rearward portion of said removable rear support section.
24. The lifting device according to claim 15, wherein said bottle jack may be operated by a remote jacking system.
25. The lifting device according to claim 15, wherein said bottle jack may be operated by a remote pressure release system.
26. A portable motorcycle stand comprising,
  - an inner lifting structure and outer lifting structure commonly joined by a fulcrum to form a scissor frame, said lifting structures each having an arm portion and a leg portion, said leg portions adapted to engage a floor;
  - an upper cradle support attached to said arm portions, said cradle support adapted to receive both wheels of a motorcycle; and

an articulated lifting system integrated within said scissor frame, said lifting system configured to elevate said upper cradle from a non-deployed position to a deployed position.

27. The stand according to claim 26, wherein said leg portion of said outer lifting structure includes a plurality of roller wheels.

28. The stand according to claim 26, wherein when said stand is deployed or reconfigured to the non-deployed position, said leg portion of said outer lifting structure rolls on the floor and leg portion of said first cross member maintains a stationary position.

29. The stand according to claim 26, wherein said stand may be inclined and moved similar to that of a dolly

30. The stand according to claim 26, wherein said lifting device may be stored a vertically upright position similar to that of a dolly

31. The stand according to claim 26, said inner lifting structure, upper lifting structure, and upper cradle support formed from light weight high-strength tubing.

32. The stand according to claim 26, said upper cradle support having a generally channel shaped cross section adapted to receive both tires of a motorcycle.

33. The stand according to claim 32, said cradle support further adapted to support sidewalls of both tires.

34. The stand according to claim 26, said upper cradle support comprising longitudinally and parallel oriented lower left and right support members and upper left and right support members, said upper left support member spaced above and laterally outward from said lower left support member and said upper right support member spaced above and laterally outward from said lower right support member.

35. The stand according to claim 26, said upper cradle support further comprising a wheel chock adapted to accept an incoming wheel without requiring any adjustment by the operator of said stand.

36. The stand according to claim 26, said articulated lifting system comprising,  
a hydraulic bottle jack having a base pivotally mounted about a jacking device axle mounted transversely in a forward region of said inner lifting structure, and a displacement arm which is adapted to be hydraulically pushed from said bottle jack, said displacement arm having a distal end;

a lifting arm rotatably attached about said fulcrum, said lifting arm having a forward portion and a rearward portion, said forward portion pivotally attached to said distal end of said displacement arm; and

a rearward linkage arm having one end pivotally attached to said rearward portion of said lifting arm, and another end pivotally attached to a distal end of said outer lifting structure.

37. The stand according to claim 26, wherein when said stand is in the non-deployed position, said articulated lifting system is positioned in a generally straight configuration within said inner and outer lifting structure.

38. The stand according to claim 26, wherein when said motorcycle lifting device is in the non-deployed position, said inner and outer lifting structures are oriented in a generally parallel manner with respect to each other.

39. A portable motorcycle lifting device comprising:

an inner lifting structure having a first forward and first rearward end;

an outer lifting structure having a second forward and second rearward end;

an upper cradle support having a third forward and third rearward end; and

an articulated lifting system integrated within said inner and outer lifting structures, wherein said inner lifting structure is generally positioned within said outer lifting structure and both lifting structures are connected by a common fulcrum positioned approximately in the middle of each lifting structure,

wherein said second rearward end of said outer lifting structure is rotatably and slidably attached to said third rearward end of said upper support cradle,

wherein said first forward end of said outer lifting structure is rotatably attached to said third forward end of said upper cradle support,

wherein said articulated lifting system may be operated to raise said upper cradle support from a non-deployed position to a fully deployed position.

40. The lifting device according to claim 37, said first rearward end of said outer lifting structure having a first transversely mounted cross member, and said second forward end of said outer lifting structure having a second transversely mounted cross member.

41. The lifting device according to claim 40, said first cross member having a roller wheel assembly mounted to each end of said first cross member.

42. The lifting device according to claim 41, wherein when said lifting device is deployed or reconfigured to the non-deployed position, said first cross member rolls on the floor surface via said roller wheel assemblies and said second cross member stays in a stationary position.
43. The lifting device according to claim 42, wherein when said lifting device may be moved similar to that of a dolly.
44. The lifting device according to claim 42, wherein said lifting device may be stored in a vertically upright position similar to that of a dolly.
45. The lifting device according to claim 39, said inner lifting structure, outer lifting structure, and upper cradle support formed from light weight high-strength tubing.
46. The lifting device according to claim 39, said upper cradle support having a generally channel shaped cross section adapted to receive at least one of a front and rear tire of a motorcycle.
47. The lifting device according to claim 46, said cradle support adapted to support sidewalls of at least one of the front and rear tire of the motorcycle.
48. The lifting device according to claim 45, said upper cradle support comprising longitudinally and parallel oriented lower left and right support members and upper left and right support members, said upper left support member spaced above and laterally outward from said lower left support member and said upper right support member spaced above and laterally outward from said lower right support member.
49. The lifting device according to claim 48, wherein said lower left and right support members are adapted to support a tread and ground contacting region of a motorcycle tire, and wherein said upper left and right support members are adapted and positioned to support a sidewall region of the motorcycle tire.
50. The lifting device according to claim 39, said upper cradle support further comprising a wheel chock.
51. The lifting device according to claim 50, said wheel chock adapted to accept an incoming wheel without requiring any adjustment by the operator of said lifting device.
52. The lifting device according to claim 39, said third forward end of said upper cradle having an upwardly inclined portion which forms a forward tire cradle.
53. The lifting device according to claim 39, said articulated lifting system comprising,

a hydraulic bottle jack having a base pivotally mounted about a jacking device axle mounted transversely in a rearward region of said inner lifting structure, and a displacement arm which is adapted to be hydraulically pushed from said bottle jack, said displacement arm having a distal end;

a lifting arm rotatably attached about said fulcrum, said lifting arm having a forward portion and a rearward portion, said rearward portion pivotally attached to said distal end of said displacement arm; and

a forward linkage arm having one end pivotally attached to said forward portion of said lifting arm, and another end pivotally attached to said second forward end of said outer lifting structure.

54. The lifting device according to claim 53, wherein said bottle jack is operated by a remote jacking system comprising a jacking arm attached to a jacking arm axle housing, a jacking leverage arm connected to said axle housing, and a jacking linkage arm having one arm articulately linked to the leverage arm and another end articulately linked to a jacking input of said hydraulic bottle jack.

55. The lifting device according to claim 53, further comprising a remote pressure release feature.

56. The lifting device according to claim 55, said remote pressure release feature comprising a cable having a flexible inner turning element with one end connected to a bleed valve on said hydraulic bottle jack, and another end attached to a first end of an inner rotatable rod rotatably housed in a longitudinal housing, and a thumb wheel knob attached to a second end of the inner rotatable rod.

57. The lifting device according to claim 55, said remote pressure release feature comprising an articulated arm comprising at least two segments having a swivel joint therebetween each of said at least two segments, said articulated arm having a first end swivel attached to a bleed valve on said hydraulic bottle jack, and a thumb wheel knob attached to a second end of said articulated arm.

58. The lifting device according to claim 50, wherein when said motorcycle lifting device is in the non-deployed position, said articulated lifting system is positioned in a generally straight configuration within said inner and outer lifting structure.

59. The lifting device according to claim 39, wherein when said motorcycle lifting device is in the non-deployed position, said inner and outer lifting structures are oriented in a generally parallel manner with respect to each other.

60. The lifting device according to claim 39, said inner and outer lifting structures forming a scissor frame.

61. The lifting device according to claim 39, further comprising a removable rear support section rotatably attached to said rearward end of said upper cradle support, said rear support section having a vertically oriented lower ramp support formed from a tubular member having a substantial bend forming an elbow which is adapted to contact the ground for support when a motorcycle is being loaded onto said lifting device.

62. The lifting device according to claim 61, further comprising an upper support plate positioned atop and fixedly attached to said removable rear support section.

63. The lifting device according to claim 61, wherein said rear support section may be folded upwards and positioned next to said upper cradle support when said lifting device stored in a vertical position.

64. The lifting device according to claim 39, further comprising a bracing member which is hingedly attached to an upper forward end of said inner lifting member and which may be engaged with one of a series of catches positioned on an upper forward portion of said outer lifting structure.

65. The lifting device according to claim 61, further comprising a removable ramp adapted to be attached to a rearward portion of the rear support section and further adapted to contact the ground.

66. The lifting device according to claim 65, said removable ramp comprising a tubular frame structure having a generally rectangular and planar shape, and a ramp hook attached to an end of said ramp for attachment to said rear support section.

67. The lifting device according to claim 45, further comprising a removable and positionable auxiliary jacking device adapted to fit within said upper cradle support.